

ABSTRACT

A harmonic structure acoustic signal detection device not depending on the level fluctuation of the input signal including: an FFT unit which performs FFT on an input signal and calculates a power spectrum component for each frame; a harmonic structure extraction unit which leaves only a harmonic structure from the power spectrum component; a voiced feature evaluation unit which evaluates correlation between the frames of harmonic structures extracted by the harmonic structure extraction unit, thereby evaluates whether or not the segment is a vowel segment, and extracts the voiced segment; and a speech segment determination unit which determines a speech segment according to the continuity and durability of the output of the voiced feature evaluation unit.